

CLAIMS:

1. A method of processing a skin print image, and particularly a fingerprint image, which image exists as a gray-level image, characterized in that

the gray-level image is convolved in the direction of two axes (x, y) by generalized gradient filters (Gx, Gy),

5 the generalized gradients (Bx, By) obtained in this way are normalized, the normalized, generalized gradients (Cx, Cy) are each convolved with generalized gradient filters (Qx, Qy) and

the sum (D) of the two results (Dx, Dy) of the convolution of the normalized, generalized gradients (Cx, Cy) is converted to binary form.

10 2. A method as claimed in claim 1, characterized in that the generalized gradient filters (Gx, Gy, Qx, Qy) each constitute the superimposition of a two-dimensional Gaussian bell curve and a suitably enlarged gradient filter, the size of each of which is adjusted to suit the average density of the furrows in the skin print image.

15 3. A method as claimed in either of the foregoing claims, characterized in that, to enable a region of interest of a skin print image to be determined from the generalized gradients (Bx, By), items (L) of length information are obtained that are compared with a preset length and, if the preset length is exceeded, the given pixel is designated as belonging
20 to the region of interest.

4. An arrangement for processing a skin print image, and particularly a fingerprint image, which image exists as a gray-level image, characterized by means for convolving the gray-level image in the direction of two axes (x, y) by

25 generalized gradient filters (Gx, Gy),

normalizing the generalized gradients (Bx, By) obtained in this way, convolving each of the normalized, generalized gradients (Cx, Cy) with generalized gradient filters (Qx, Qy) and

converting the sum (D) of the two results (Dx, Dy) of the convolution of the normalized, generalized gradients (Cx, Cy) to binary form.

5. An arrangement as claimed in claim 4, characterized in that the generalized
5 gradient filters (Gx, Gy, Qx, Qy) each constitute the superimposition of a two-dimensional Gaussian bell curve and a suitably enlarged gradient filter, the size of each of which is adjusted to suit the average density of the furrows in the skin print image.
6. An arrangement as claimed in claim 4 or 5, characterized by a means for
10 obtaining items (L) of length information from the generalized gradients (Bx, By), for comparing these item (L) of length information with a preset length and, if the preset length is exceeded, for designated the given pixel as belonging to the region of interest.